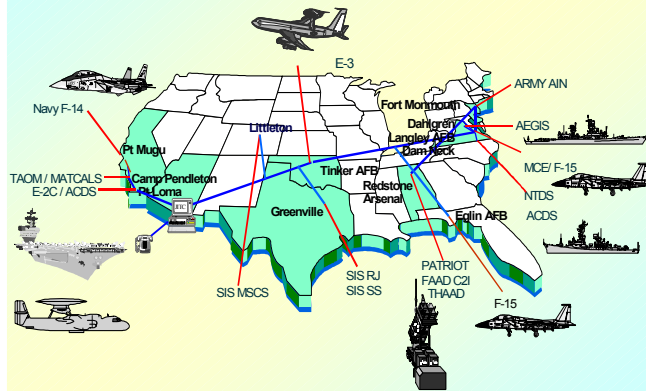


## ***OPERATIONAL ENVIRONMENT***

The current connectivity of the distributed JTDL testbed is depicted below. Along with JITC, the military Services and Defense Agency testbeds provide the full range of testing capabilities required for the joint standards validation, standards conformance, interoperability certification and performance testing. The integrated network constitutes the framework for certification testing. Test analyses and recommendations are provided to the user as part of the unique service provided by JITC.

### **Tactical Data Link Distributed Network**



## ***INTERNATIONAL ARENA***

JITC is the test agent for combined interoperability testing. Combined tests are conducted with NATO members under the NATO Interoperability Management Plan and with Singapore, Australia, New Zealand, Japan, Korea, and Thailand, under the Pacific Command Combined Interoperability Program. We expect this program to expand significantly in the coming years.



*Mr Michael Molitor*  
DSN 879-5167  
(520) 538-5167  
FAX (520)538-4375  
DSN FAX 879-4375  
*e-mail: [molidorm@fhu.disa.mil](mailto:molidorm@fhu.disa.mil)*

*Ms Phyllis Anderson*  
DSN 879-5475  
(520) 538-5475  
FAX (520)538-4375  
DSN FAX 879-4375  
*e-mail: [andersop@fhu.disa.mil](mailto:andersop@fhu.disa.mil)*

**Joint Interoperability Test Command**  
2001 Brainard Road, Building 57305  
Fort Huachuca, AZ 85613-7051

**1-800-LET-JITC**  
**<http://jitc.fhu.disa.mil>**

***Increasing Combat Effectiveness  
Through Interoperability***

## ***JOINT TACTICAL DATA LINK (JTDL) LABORATORY***



## ***Joint Interoperability Test Command***

## INTRODUCTION

### *Tactical Data Links (TDL)*

In its capacity as the testing arm of the Defense Information Systems Agency (DISA), the Joint Interoperability Test Command (JITC) plays a major role in the evolution of the Department of Defense's (DOD's) information exchange testing of tactical Command, Control, Communications, Computer and Intelligence (C<sup>4</sup>I) systems. As the Executive Agent for testing information exchange, supporting system certification vice an interface focused certification process, JITC leverages hardware-in-the-loop and field events to ensure systems:

- ◆ Comply with military standards
- ◆ Meet data exchange performance thresholds
- ◆ Interoperate effectively in a Joint environment

The diverse nature of DOD C<sup>4</sup>I systems presents many challenges to this mission requiring JITC to employ a suite of capabilities to include the Joint Interoperability Modular Evaluation System (JIMES) for active Link 11/11B/16 testing, the Joint C<sup>4</sup>I Operational Assessment Team (JOCAT) for assessing interoperability at Joint and Service/Agency (S/A) tests and exercises, and the Joint Theater Air and Missile Defense (JTAMD) Analysis Cell for extensive post event analysis.

*Visit our World Wide Web Homepage at  
<http://jitic.fhu.disa.mil>*

### **JIMES**

JIMES is a suite of software tools designed to support testing of DOD tactical C<sup>4</sup>I systems' JIMES Link 11/11B/16 standards compliance and interoperability in joint (US) and combined (US/Allied) operations. JITC uses operationally configured system hardware and software for data link testing.

JIMES is equipped with a sensor stimulator and is capable of providing participating systems sensor tracking simulation. JIMES records all the exchanged messages and produces a formatted report to facilitate posttest analysis of interface operations and system performance. For Link 11/11B/16, the JIMES interfaces with participating systems through standard communications and cryptographic equipment. For Link 11/11B/16 testing, connectivity between the remote C<sup>4</sup>I systems and their JTIDS terminals is achieved through a gateway system produced by Space and Naval Warfare Systems in San Diego. Systems are connected to JIMES through leased T-1 grade telephone lines or commercial dial-up lines.

### **JOCAT**

The JOCAT is a modular, deployable, equipment, and personnel team that provides JITC the capability to conduct real-time and near-real-time (NRT) and analysis of C<sup>4</sup>I systems, to include national, strategic, and tactical data transfer for the Joint Data Network, Joint Planning Network, and the Joint Composite Tracking Network. Additionally, JOCAT will support assessment of the Family of Systems for JTAMD and system interoperability assessment and certification during Combatant Commander's field exercises. Specifically, the JOCAT will provide the ability to conduct NRT analysis of collected data and critical intelligence feeds essential to the evaluation and assessment of C<sup>4</sup>I systems ability to provide decision makers an accurate and timely single integrated air picture.

During real-time, the JOCAT provides the capability to view a set of displays (graphic and text based) and the information portrayed on the displays and voice nets to determine items of interest for analysis in NRT

During NRT, the analysis is based on discrete events and

anomalies noted under the direction of the real-time operator. The NRT analysis is also based on specific analysis to support the exercise requirements (such as JTAMD critical operational issues or objectives based on the exercise support plan).

## **WHAT STEPS ARE REQUIRED FOR TADIL CERTIFICATION?**

The DOD has directed that "all C<sup>4</sup>I systems developed for use by the US Forces are considered to be for joint use." The Joint Staff published the TDL 11/11B/16 standards used to ensure systems meet end users' information exchange needs and interoperability requirements. Program milestone decisions now depend on joint interoperability and certification.

*All policy documents pertaining to joint interoperability testing and certification are on our web site at <http://jitic.fhu.disa.mil/ciidocs.htm>*

1. Contact your service Participating Test Unit Coordinator (PTUC) listed below.
2. Contact JITC POC for inclusion in the System Tracking Program. PM's should put in a placeholder for their system early in program development.
3. Plan and budget for Joint Interoperability Testing during development (CJCSI 6212.01C).
4. Include Joint Testing and Certification in ICD, CPD, and CDD (CJCSI 6212.01C).
5. Provide system TDL Implementation and System Descriptions to JITC.

### **Participating Test Units Coordinators**

<b>Air Force</b>	Mr Gerald Eddy	DSN 575-2939
<b>Navy</b>	Mr Edward Tawil	DSN 553-8247
<b>Army</b>	Mr Jesse Bruun	DSN 987-2515
<b>Marines</b>	Ms Julie Goodrich	DSN 365-2165
<b>NSA</b>	Mr Curt Dorsey	DSN 969-5156